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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,671	10/14/2003	Herbert P. Hartgrove	PGI6044P0132US	3389
32116	7590	04/05/2006	EXAMINER	
WOOD, PHILLIPS, KATZ, CLARK & MORTIMER 500 W. MADISON STREET SUITE 3800 CHICAGO, IL 60661			BEFUMO, JENNA LEIGH	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/684,671

**Applicant(s)**

HARTGROVE ET AL.

**Examiner**

Jenna-Leigh Befumo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 14, 17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The Amendment submitted on January 11, 2006, has been entered. Claims 1 – 13, 15, 16, 19, and 20 have been cancelled. Claim 14 has been amended. Therefore, the pending claims are 14, 17, and 18.

### ***Claim Objections***

2. Claim 14 is objected to because of the following informalities: the term “acrylic” is misspelled in line 4 of claim 14. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 14, 17, and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. The phrase “% weight to volume” in claim 14 is indefinite. It is unclear what percentage is being measured. It appears from the disclosure (pages 9 – 10), that the measurement is referring to the weight percent of the binder component in the overall binder composition. Thus, the claim is examined as if the units are the weight percent of the component based on the total weight of the binder composition. Claims 17 and 18 are rejected for their dependency on claim 14.

### ***Claim Rejections - 35 USC § 103***

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6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 14, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeffers et al. (4,925,722) in view of Birch (5,458,962).

The features of Jeffers et al. and Birch have been set forth in the previous Office Action. Claim 14 has been amended to include the limitation that the nonwoven fabric has a three dimensional surface to facilitate the retention of a buffing compound. As shown in the figures the Jeffers et al. patent produces a nonwoven fabric with a three-dimensional surface. This would inherently help retain a buffing compound.

Further, the claim has been amended to include the limitation that the binder has a binder composition comprising 0.2 to 0.5% by weight melamine and 10 to 25% by weight acrylic/copolymer. These weight percents represent the amounts of the compounds in the binder composition prior to being coated onto the fabric and removing the water. Thus, the composition is an intermediate product, and it would be the amount of the binder components in the final composition which deserves patentable weight. The amount in the final product is dependent not only on the amount of the components in the binder composition, but also the amount of binder coated onto the nonwoven fabric per unit area. Thus, the claimed amount in the binder composition are only given weight with respect to the ratio of the melamine component to the acrylic/copolymer component since the claim does not limit how much or how little of the composition is added to the fabric. Hence, the ratio of melamine to acrylic/copolymer is 1:20 to 1:125. Birch discloses that the binder composition has 30 – 85% by weight acrylic/copolymer and 1 – 25% by weight melamine. Thus, the ratio of the two components is 1:1.2 to 1:85. Hence

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the binder composition taught by Birch has the claimed components in the same ratios as the applicant.

Finally, the applicant now claims that the nonwoven fabric has a basis weight of at least 3.5 oz/yd<sup>2</sup> (which is about 99 gsy or about 120 gsm). Jeffers et al. discloses a basis weight of 45 – 70 gsy (abstract). Birch discloses a nonwoven web can be used to treat surfaces, such as by buffing (column 1, lines 15 – 17). Birch discloses that the nonwoven web have a basis weight of 300 to 1000 gsm (column 13, lines 28 – 31). Thus, the heavier web is more durable so that it can be used in more durable applications such as buffing. Therefore, it would have been obvious to one having ordinary skill in the art to use a heavier basis weight fabric as taught by Birch to produce the nonwoven, durable fabric disclosed by Jeffers et al. to make the fabric more durable and have a longer life as a wipe or cleaning material due to the heavier structure. Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to choose a heavier basis weight fabric, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215. One of ordinary skill in the art would be motivated to increase the weight of the fabric to produce a heavier fabric which can last longer during use to give the fabric a longer life and make the fabric more durable so that it can be used in cleaning areas which require more durable fabrics. Thus, claims 14, 17, and 18 are rejected.

#### ***Response to Arguments***

8. Applicant's arguments filed January 11, 2006 have been fully considered but they are not persuasive. The applicant argues that the claimed fabric has been configured specifically for use in buffing devices; i.e., the fabric has been given a heavy basis weight, a sufficient binder

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composition and a three-dimensional image (response, pages 4 – 5). The applicant argues that the prior art cannot be used in buffing applications. First, there is no clear evidence that the fabric as modified wouldn't work in a buffing application. Second, the buffing application is an intended use for the fabric which is not given patentable weight since the use fails to add further structural limitations to the fabric.

Further, the applicant argues that the claimed “three-dimensional image” is critical to the buffing ability of the fabric (response, page 5). However, in claim 14, the applicant is only claiming a general apertured, three-dimensional image to help retain the buffing compound. Since any three-dimensional would increase the surface area of the fabric, the image would inherently increase the fabrics ability to retain a buffing compound. Further, the prior art clearly teaches an apertured, three-dimensional image on the surface since the fabric of Jeffers et al. does not have a smooth fabric surface. Any material without a completely smooth surface, i.e., any variations in surface structure, would inherently be a three-dimensional imaged surface. Finally, the applicant has failed to show that the designs recited in claim 17 and 18 produce any unexpected results with respect to the properties of the fabric. Would any three-dimensional image produce improved buffing abilities, making different design an obvious variation? Or, do the specific designs claimed by the applicant produce unexpected buffing properties which would not be present in the three-dimensional image taught by Jeffers et al.

Finally, with regard to Birch, Birch discloses how to produce fabrics useful in buffing applications. Specifically, Birch, discloses using a specific binder composition and a heavier nonwoven fabric. Thus, Birch provides teaching with regards to how to produce a stronger more

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durable fabric which can be used in more heavy-duty cleaning applications. Therefore, the rejection is maintained.

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna-Leigh Befumo whose telephone number is (571) 272-1472. The examiner can normally be reached on Monday - Friday (8:00 - 5:30).

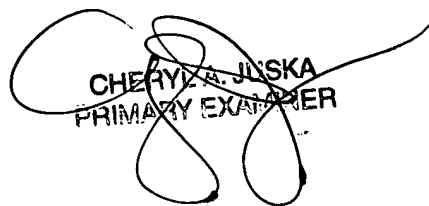
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jenna-Leigh Befumo  
March 29, 2006



CHERYLA A. JUSKA  
PRIMARY EXAMINER